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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/747,669	12/29/2003	Fusasuke Gotoh	KAM 17.895B (100799-00090)	1565
26304	7590	07/31/2006	EXAMINER	
KATTEN MUCHIN ROSENMAN LLP 575 MADISON AVENUE NEW YORK, NY 10022-2585			JOYCE, WILLIAM C	
			ART UNIT	PAPER NUMBER
			3682	

DATE MAILED: 07/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/747,669	<b>Applicant(s)</b> GOTOH, FUSASUKE	
	<b>Examiner</b> William C. Joyce	<b>Art Unit</b> 3682	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 15 May 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) 2 and 4 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3,5 and 6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

This Office Action is in response to the amendment filed May 15, 2006 for the above identified patent application.

#### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1 and 3 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

a. The newly amended limitation "an inner peripheral surface which is formed in one of a cylindrical surface and a concave surface having an inner diameter which increases from the opening of the pockets on the outer side toward the opening of the pockets on the inner side" appears to be inaccurate and therefore unclear. Specifically, a cylindrical surface cannot have an inner diameter that increases from one side to the other. More clearly, a cylinder has a constant diameter. Is applicant attempting to define the inner peripheral surface as having a conical shape? Appropriate correction is required.

b. The newly amended limitation "*an the* inner diameter.." (line 9 of claim 1) is not fully understood.

c. On line 1 of claim 3, the addition of the word "type" to an otherwise definite expression extends the scope of the expression so as to render it indefinite. Ex parte Copenhaver, 109 USPQ 118 (Bd. App. 1955).

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

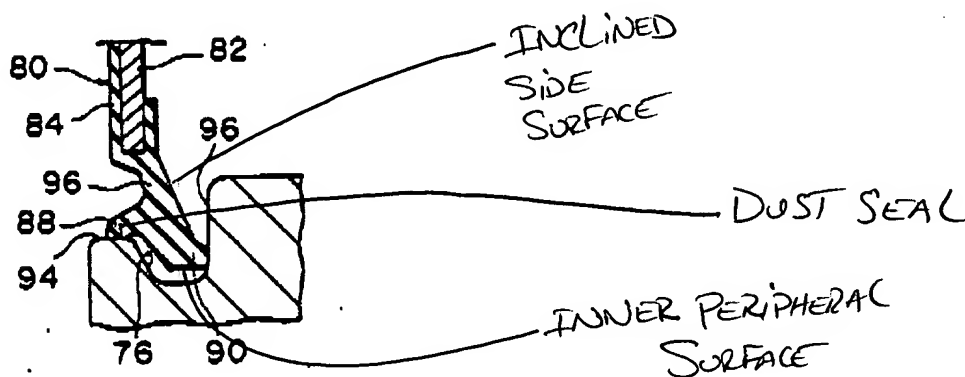
4. Claim 1, as understood, is rejected under 35 U.S.C. 102(e) as being anticipated by Mutoh et al. (US Patent 6,068,408).

Figure 1 of Mutoh et al. illustrates a retainer for a ball bearing formed in a generally annular shape and having a plurality of pockets (8) arranged in a circumferential direction to hold a plurality of balls along a pitch circle, the pockets each having an opening on outer and inner sides in the radial direction of the retainer, the pockets having an inner peripheral surface formed such that a diameter of the pockets are larger than the diameter of the balls at a position located inward of the pitch circle, a diameter of the pockets on the outer side in a radial direction of the retainer has a diameter smaller than the diameter of the balls.

With respect to the newly amended limitation, the inner peripheral surface illustrated in Fig. 1 is considered a cylindrical surface inasmuch as applicant's inner surface is cylindrical.

5. Claim 5 is rejected under 35 U.S.C. 102(b) as being anticipated by Uchida et al. (US Patent 5,037,213).

Uchida et al. illustrates in Figure 4 a seal as shown below. The seal having an inclined side surface opposing a wall surface of a seal groove, an inner peripheral surface located radially inward of the inclined side surface and opposing a bottom surface of the seal groove, a continuation portion for continuously connecting the inclined side surface with the inner peripheral surface, the continuation portion being in sliding contact with the seal groove, the angle between the wall surface of the seal groove and the inclined side surface being in a range from 10 degrees to 45 degrees, the inner peripheral surface of the seal being parallel to the bottom of the seal groove. Note the Figure below.



**FIG. 4**

6. Claim 5 is rejected under 35 U.S.C. 102(b) as being anticipated by applicant's admitted prior art of Figures 7-8.

Applicant's admitted prior art of Figures 7-8 illustrates a seal comprising an inclined side surface (120) opposing a wall surface (115) of a seal groove, an inner peripheral surface located radially inward of the inclined side surface and opposing a bottom surface of the seal groove, a continuation portion for continuously connecting the inclined side surface with the inner peripheral surface, the continuation portion being in sliding contact with the seal groove, the angle ( $\alpha$ ) between the wall surface of the seal groove and the inclined side surface being approximately 9.5 degrees, the angle ( $\beta$ ) between the inner peripheral surface of the seal and the bottom of the seal groove being approximately 15 degrees.

### ***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mutoh et al. (US Patent 6,068,408).

As described above, Mutoh et al. teaches a retainer having the claimed pockets. Referring to Figure 11, Mutoh et al. teaches a crown shaped retainer having elastic pieces provided on one side in the axial direction of the annular main portion. It would have been obvious to one of ordinary skill in the art at the time the invention was made to form the retainer illustrated in either Figures 1 or 4 of Mutoh et al. with elastic pieces,

as taught in Figure 11 of Mutoh et al. motivation being to provide flexibility to the retainer.

9. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Uchida et al. (US Patent 5,037,213).

As described above, Uchida et al. discloses in Figure 4 a seal having the features defined by claim 5, but Figure 4 does not appear to show the continuation portion being formed on a curved surface defining an arch shape in cross section. It was known in the art to form the portion of a lip seal that engages a bearing race as a curved arch shaped surface. For example, Figure 2 of Uchida et al. illustrates the portion of the seal (6) that engages a side wall (38) of a seal groove as a curved arch shaped surface. It would have been obvious to one of ordinary skill in the art at the time the invention was made to form the continuation portion illustrated in Figure 4 of Uchida et al. with a curved arch shaped surface, as illustrated in Figure 2 of Uchida et al., motivation being to reduce the contact surface between the relatively moving components.

### ***Response to Arguments***

10. Applicant's arguments filed May 15, 2006 have been fully considered but they are not persuasive.

With respect to claim 1, the inner peripheral surface illustrated in Fig. 1 of Mutoh et al. is considered a cylindrical surface inasmuch as applicant's inner surface is cylindrical. Note the rejection of the claim 1 based on 35 USC 112, second paragraph.

With respect to claim 5, Uchida et al. illustrates a dust seal lip (88) located on the outside of the inner peripheral edge and facing the outer peripheral surface of the inner race.

The argument “the seal lips of Uchida contact all the way around the circumference at two separate locations in the axial direction on the outer peripheral surface on the ends of the inner race” is not persuasive because it is not commensurate with the scope of the claim.

With respect to the prior art illustrated in Figures 7-8 of the instant application, it is understood the angle  $\alpha$  is about 9.5 degrees (see applicants’ remarks, page 8). Accordingly, the angle “*about* 9.5 degrees” is considered 10 degrees, and therefore the claims do not define over the admitted prior art.

### ***Conclusion***

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any



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extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William C. Joyce whose telephone number is (571) 272-7107. The examiner can normally be reached on Monday - Thursday 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Ridley can be reached on (571) 272-6917. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
William C. Joyce 2/24/06